

Claims

[c1] 5. A laser repair method for repairing a pixel structure, comprising the steps of:

providing a pixel structure comprising a thin film transistor, a pixel electrode, a scan line, a data distributing line, a conductive line underneath the data distributing line, a first dielectric layer isolating the conductive line and the data line electrically, and a second dielectric layer covering the data distributing line, wherein the conductive line has a connective section and repair sections at each end of the connective section, and the repair sections cover an area larger than the data distributing line;

forming a first opening and a second opening in the first dielectric layer and the second dielectric layer above the repair sections so that a portion of the data distributing line and the respective repair sections are exposed; and forming a conductive layer over the exposed surface of the first opening and the second opening so that the respective repair sections and the data distributing line are electrically connected.

[c2] 6. The method of claim 5, wherein the step of forming

the first opening and the second opening includes conducting a laser burning operation.

[c3] 7. The method of claim 5, wherein the step of forming the conductive layer includes conducting a laser chemical vapor deposition, comprising the sub-steps of:
providing a reactive gas; and
shining laser pulses at the reactive gas so that the reactive gas is activated to deposit into the first opening and the second opening to form the conductive layer.

[c4] 13. A laser repair method for repairing a pixel structure, comprising the steps of:
providing a pixel structure comprising a thin film transistor, a pixel electrode, a scan line, a data distributing line, a conductive line underneath the data distributing line, a first dielectric layer isolating the conductive line and the data line electrically, and a second dielectric layer covering the data distributing line, wherein the conductive line includes a connective section, and a contact section and a repair section at each end of the connective section, wherein the contact section is electrically connected to the data distributing line, and the contact section and the repair section occupy an area greater than the area covered by the data distributing line;
forming an opening in the first dielectric layer and the second dielectric layer above the repair sections; and

forming a conductive layer over the exposed surface of the opening so that the repair section and the data distributing line are electrically connected.

[c5] 14. The method of claim 13, wherein the step of forming the opening includes conducting a laser burning operation.

[c6] 15. The method of claim 13, wherein the step of forming the conductive layer includes conducting a laser chemical vapor deposition, comprising the sub-steps of:
providing a reactive gas; and
shining laser pulses at the reactive gas so that the reactive gas is activated to deposit into the opening to form the conductive layer.

[c7] 16. A laser repair method, comprising the steps of:
providing a substrate board having a distributing line thereon, wherein a dielectric layer covers the distributing line and the distributing line has a broken region;
forming an opening in the dielectric layer above the broken region so that the broken region and the distributing line at each end of the broken region are exposed; and
forming a conductive layer over the exposed broken region and the distributing line at the end of the broken region so that the distributing line is reconnected electrically through the conductive layer.

[c8] 17. The laser repair method of claim 16, wherein the step of forming an opening in the dielectric layer includes conducting a laser burning operation.

[c9] 18. The laser repair method of claim 16, wherein the step of forming the conductive layer includes conducting a laser chemical vapor deposition, comprising the sub-steps of:
providing a reactive gas; and
shining laser pulses at the reactive gas so that the reactive gas is activated to deposit into the opening to form the conductive layer.